



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,611	07/15/2003	Junichi Ooka	240321US3	5359

22850 7590 08/03/2004

OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

BONCK, RODNEY H

ART UNIT PAPER NUMBER

3681

DATE MAILED: 08/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/618,611

Applicant(s)

OOKA, JUNICHI

Examiner

Rodney H. Bonck

Art Unit

3681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

The following is a first action on the merits of application Serial No.10/618,611, filed July 15, 2003.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1 and 3 recite that "the dog clutch is integrally fitted onto a boss portion of said transmission gear". The intended meaning of "integrally fitted" is unclear. Claim 3 is further indefinite in referring to "a lower surface of said flange" since no upper or lower direction has been defined.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hori et al.(JP 2-31060) in view of Ohoka('089) and Goldschmidt et al.('848). The Hori et al. device shows a transmission gear 1 with a dog clutch gear 15 fitted onto the boss portion 7. The clutch gear has clutch teeth 19 formed on a ring part. A flange 21 is formed on the ring part on a side corresponding to the base portion of the clutch teeth. Hori et al. does not appear to show the tooth thickness decreasing from the chamfer portion to the base end. That tooth configuration is well known in this art, however, and is shown by Ohoka at 5. It would have been obvious to provide that tooth configuration in Hori et al., the motivation being to provide teeth that maintain engagement when under torque load. The Hori et al. device also shows only a single interface 23 between the ring part and the transmission gear. Goldschmidt et al., however, shows a toothed ring 1 secured to a body portion 3 with multiple interfaces 6 and 12. It would have been obvious to provide plural weld interfaces in Hori et al., the motivation being to provide a more secure attachment of the clutch ring part to the transmission gear. Method steps recited in claims 2, 3 and 4 do not carry patentable weight in these claims to a transmission gear. Claim 11 does define a method but it is submitted that simultaneously performing multiple weld joints would have been obvious to one having ordinary skill in this art as a means to reduce the number of assembly steps.

Claims 1-4 and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Howard('779) in view of Ohoka('089) and Goldschmidt et al.('848). Regarding claims 1-4, Howard shows in Fig. 2 a transmission gear 15 with a dog clutch gear 16 fitted onto a boss portion. The clutch gear has clutch teeth 13 formed on a ring part. A flange (not numbered) is formed on the ring part on a side corresponding to the base portion of the clutch teeth. Howard does not appear to show the tooth thickness decreasing from the chamfer portion to the base end. That tooth configuration is well known in this art, however, and is shown by Ohoka at 5. It would have been obvious to provide that tooth configuration in Howard, the motivation being to provide teeth that maintain engagement when under torque load. The Howard device also shows only a single interface E between the ring part and the transmission gear. Goldschmidt et al., however, shows a toothed ring 1 secured to a body portion 3 with multiple interfaces 6 and 12. It would have been obvious to provide plural weld interfaces in Howard, the motivation being to provide a more secure attachment of the clutch ring part to the transmission gear. Regarding claims 12 and 13, Howard shows in Fig. 4 a dog clutch gear 15 and a transmission gear 15 with an axial hole that matches the flange of the ring part. The transmission gear is fitted onto the flange. Method steps recited in claims 2, 3 and 4 do not carry patentable weight in these claims to a transmission gear. Claim 13 does define a method but it is submitted that simultaneously performing multiple weld joints would have been obvious to one having ordinary skill in this art as a means to reduce the number of assembly steps.

Allowable Subject Matter

Claims 6-10 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hasegawa(JP 63-120958) is cited to show tapered clutch teeth. Pandjiris et al.('738) and LeBlanc('920) show gears with multiple weld joints.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rodney H. Bonck whose telephone number is (703)-308-2904. The examiner can normally be reached on Monday-Friday 7:00AM - 3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A. Marmor can be reached on (703)-308-0830. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3681

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Rodney H. Bonck
Primary Examiner
Art Unit 3681

rhb
July 30, 2004